

Optical diamond fabrication for military applications - Defense Wide

Proposed Recipient: Valdosta Optics Laboratory

Address of Recipient: 1717 Dow Street; Valdosta, GA 31601

Explanation of Request

Purpose: Adhesive-Free Bond Diamond (AFB®-D) will enable DoD ultra-high power solid state weapon lasers for space platforms and will help remedy current limitations, including foreign material sources, limited availability and limited sizes. Current technology has not found effective ways to conduct heat away from high power mid-infrared components that are being built into Infrared Countermeasure (IRCM) systems and as a result, equipment is too heavy and bulky to be practical. This technology, however, is vital for IRCM systems that are used for jamming the guidance systems of incoming missiles and defending against man-portable shoulder-fired infrared guided SAMs (Surface-to-Air Missiles). There are presently no established, deployed systems for IRCM jamming pods.

Why is it a good use of Taxpayer funds: Improvement in manufacturing techniques to produce high quality optics.